Differences in The Effectiveness of Sadari Learning With Jigsaw and STAD Models on Practical Accuracy

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ABSTRACT

In Indonesia, there is still very little education about awareness for women, especially for teenagers, so many teenagers do not understand and are competent in practicing awareness. Providing awareness learning is very necessary for women, especially teenagers, because by providing learning, teenagers are expected to be able to practice and make awareness a habit. The aims of this study is to find out the difference in the effectiveness of conscious learning with the cooperative strategy of the jigsaw model and the STAD model on the accuracy of practice at MTs Plus Walisongo. The type of research used is Quasi Experimental with a Non-Equivalent Control Group Design. The side technique used is nonprobability sampling using purposive sampling. The samples taken were 60 female students. The instrument used is the An Nur Husada STIKes awareness check-list which has been modified. Data analysis was processed using the Wilcoxon Match Pair Test and Man Whitney U-Test formulas. Based on the results of the Man Whitney U-Test, the Sig value was obtained. P ,000. Model learning jigsaw more effective compared to using the STAD model.

Keywords: effectiveness, jigsaw and STAD models, accuracy, awareness

INTRODUCTION

In Indonesia, there is still very little education about awareness for women, especially for teenagers, so many teenagers do not understand and are competent in practicing awareness. Providing awareness learning is very necessary for women, especially teenagers, because by providing awareness learning early, it is hoped that teenagers will be able to be competent in practicing awareness, can apply awareness as a habit and it is hoped that awareness will become a behavior and a need. This can reduce the risk of breast cancer The results of previous research stated that the majority of skills before providing health education using the word square model were poor, as many as 18 respondents (60%), and the skills after providing health education using the word square model, the majority of skills were good, amounting to 22 respondents (73.4%).(Widiyanto et al., 2021). There is a significant influence of health education using video, demonstration and leaflet methods on adolescent girls' knowledge of BSE(Nurhayati et al., 2023)

The jigsaw model refers to the approach of working together through a group and helping each other in the learning process(Kahar et al., 2020). STAD is one of the simplest cooperative learning methods, and is the best model for the initial stage for teachers who are new to using a cooperative approach(Artini, 2016). A preliminary survey which was conducted on February 5 2024, obtained the results of interviews with 12 respondents, namely class VIII students. The results showed that 10 (83%) female students did not know about realizing, 2 (17%) female students already knew about realizing but they had never do it consciously and cannot put it into practice. This is because they have never received education, information or training about awareness.

Based on the background above, the author is interested in conducting research with the title Differences in the Effectiveness of Awareness Learning Using the Jigsaw and Stad Models on Practical Accuracy, with the hope that after the training can improve the skills of teenagers at MTs Plus Walisongo in practicing realizing, making awareness a habit and a positive attitude as an effort early detection of tumors and breast cancer.

METHOD

The research used was Quasi Experimental with a Non-Equivalent Control Group Design. In this research design, the researchers divided the subjects into two groups, one group as

the experimental group who were given learning using the jigsaw method, one group as the control group who were not given learning using the STAD method. The research location was MTs Plus Walisongo from February to April 2024. The sample size in the study was 60 female students, of which the Jigsaw treatment group was 30 and the STAD was 30 female students. The sampling technique in this research was purposive sampling with the following inclusion criteria: Female students who were not involved in extracurricular/academic activities during the research were conducted, Physically and spiritually healthy.

RESULTS

a. Realize Learning Result Data Using Jigsaw Model Cooperative Strategy

The pre-test and post-test learning outcomes were realized using the jigsaw model cooperative strategy

Table 1. Pre-test and post-test learning results using the jigsaw model cooperative strategy

	Pre-test		Post test	
Criteria	Frequency	Presentation	Frequency	Presentation
Good	-	0%	25	83.3%
Enough	-	0%	5	16.7%
Not enough	30	100%	-	0%
Amount	30	100%	30	100%

In the pre-test results, 30 respondents got poor criteria (100%), and in the post-test stage 5 respondents got sufficient criteria (16.7%) and 25 respondents got good criteria (83.3%)

b. Realize Learning Result Data Using the STAD Model Cooperative Strategy

The pre-test and post-test learning outcomes are realized using the STAD model cooperative strategy

Table 2. Pre-test and post-test learning results using the STAD model cooperative strategy

	Pre-test		Post test	
Criteria	Frequency	Presentation	Frequency	Presentation
Good	-	0%	12	40%
Enough	-	0%	18	60%
Not enough	30	100%	-	0%
Amount	30	100%	30	100%

In the pre-test results, 30 respondents got poor criteria (100%), and in the post-test stage 18 respondents got sufficient criteria (60%) and 12 respondents got good criteria (40%).

c. The Influence of the Jigsaw Model on the Ability to Practice Realization Using the Wilcoxon Test

Table 3. Effect of Jigsaw Model on Skills in Practicing Realization Using the Wilcoxon Test

	Pre-test		Post test		Sig. P
Criteria	Frequency	Presentation	Frequency	Presentation	
Good	-	0%	25	83.3%	
Enough	-	0%	5	16.7%	
Not enough	30	100%	-	0%	
Amount	30	100%	30	100%	
Asym. Sig. (2-tailed)					,000

The significant p value is .000. because p <0.05 then Ho is rejected and Ha is accepted. This means that the jigsaw method has an effect on the ability to practice awareness with a significance value of p of .000. The jigsaw method can improve skills in practicing awareness.

d. The Influence of the STAD Model on the Ability to Practice Realization Using the Wilcoxon Test

Table 4. The Influence of the STAD Model on the Ability to Practice Realization Using the Wilcoxon Test

	Pre-test		Post test		Sig. P
Criteria	Frequency	Presentation	Frequency	Presentation	
Good	-	0%	12	40%	
Enough	-	0%	18	60%	
Not enough	30	100%	-	0%	
Amount	30	100%	30	100%	
Asym. Sig. (2-tailed)					,000

The significant p value is .000. because p <0.05 then Ho is rejected and Ha is accepted. This means that the STAD method has an effect on the ability to practice awareness with a significance value of p of .000. The STAD method can improve skills in practicing

awareness.

e. Differences in the Accuracy of Practicing Realization Between the Jidsaw Model and the STAD Model Using the Mann Whitney Test

Table 5.Differences in the Accuracy of Practicing Realization Between the Jidsaw Model and the STAD Model Using the Mann Whitney Test

Learning model	N	P
Jigsaw	30	,000
STAD	30	

There is a difference between the jigsaw and STAD models regarding the ability to practice awareness with a significant p value of 0.000. It can be concluded that the jigsaw model is better than the STAD model.

DISCUSSION

Realize learning outcomes with a jigsaw model

Judging from the pretest scores on the jigsaw model, the highest frequency results for the criteria were less than 100%, while in the post test results the highest frequency was for the good criteria, namely 83.3%. Learning methods that can develop students' collaboration skills include jigsaw cooperative learning. The jigsaw learning method in its application makes students interact with each other in expert groups and home groups so that students will work actively. Jigsaw learning fosters students' sense of courage in expressing opinions. they. Using case discussions in the jigsaw method shows results that collaborative activities can encourage discussions and improve collaboration skills(Indrawan et al., 2021).

The jigsaw type cooperative learning model is a learning model that is able to invite students to think actively and creatively in the learning process. This model not only develops intellectual abilities but all existing potential, including emotional development and skill development. Jigsaw cooperative learningdividing students into several groups with heterogeneous characteristics. Members from different groups have the responsibility to study the same material and then gather in expert groups to help each other study that part of the material. Next, students in the expert group return to their original group to teach other members about the material they have studied in the expert group(Simaremare & Thessalonika, 2021).The advantage of jigsaw learning is the division of home groups and expert groups. In a jigsaw group consisting of 5 female students and one female student acts as an expert where someone who has been appointed as an expert will be responsible for

guiding and sharing the understanding that has been gained from the expert group discussion. So that in jigsaw learning students can focus on what their group friends explain. Therefore, student cooperation to help each other and understanding of expert groups is highly demanded in the jigsaw model. This is what differentiates the jigsaw model from other learning models(Halimah, 2022)

Realize learning outcomes with the STAD model

Judging from the pretest scores in the STAD method, the highest frequency results for the inadequate criteria were 100%, while in the post test results the highest frequency for the sufficient criteria was 60%. The STAD cooperative learning model is a learning model that is useful for fostering cooperative, creative, critical thinking abilities and the ability to help friends. Cooperative learning activities emphasize activity and interaction between students to motivate each other and help each other in mastering the subject matter. in order to achieve maximum achievement. STAD was developed to achieve three important learning objectives, namely academic learning outcomes, acceptance of diversity or individual differences and development of social skills. STAD learning will help improve learning outcomes, student activities, teachers and student responses and interaction between students to help each other in mastering the subject matter, in order to achieve the expected goals, students are placed in learning teams to work together in groups to complete the tasks given by the teacher(Pritasari & Wilujeng, 2020). One effective way is to apply the STAD (Student Teams Achievement Divisions) type cooperative learning model.

Some of the advantages of STAD (Student Teams Achievement Divisions) type cooperative learning are: 1) students work together to achieve goals by upholding group norms; 2) students actively help and motivate enthusiasm for mutual success; 3) actively act as a peer tutor to further increase group success; and 4) interaction between students as their ability to express opinions increases(Widharningsih, 2020). The advantage of the STAD learning method is that in the process of learning, female students help each other, so that female students who do not yet understand how to practice will be motivated and active in groups to study and practice together.(Br Ginting & Stephanie, 2021)

Differences between Jigsaw and STAD Learning Models on the Accuracy of Practicing Realization

Based on the results of the analysis using the Mann Whitney u-test, it shows that there is a difference between the jigsaw learning model and practice skills with the STAD model with a significant p value of .000. This is in line with the opinion that the jigsaw type cooperative learning model is a learning model that is able to invite students to think actively and creatively in the learning process. This model not only develops intellectual abilities but all existing potential, including emotional development and skill development(Simaremare & Thessalonika, 2021). The advantage of jigsaw learning is the division of home groups and expert groups. In a jigsaw group consisting of 5 female students and one female student acts as an expert where someone who has been appointed as an expert will be responsible for guiding and sharing the understanding that has been gained from the expert group discussion. So that in jigsaw learning students can focus on what their group friends explain. Therefore, student cooperation to help each other and understanding of expert groups is highly demanded in the jigsaw model. This is what differentiates the jigsaw model from other learning models(Halimah, 2022).

This is supported by previous research which states that there is a difference in the average posttest learning achievement for the Jigsaw class of 81.20 and the STAD class of 77.07. From the hypothesis test it was found that tcount was greater than ttable (tcount = 3.2354 > ttable = 2, 001717). The results of the increase in learning achievement can be seen from the Gain value of each class, namely the Jigsaw class of 0.784 which is in the high category and the STAD class of 0.668 which is in the medium category, so that the class that uses the Jigsaw method has a higher increase in learning outcomes than the class that uses the STAD(Yudono & Widodo, 2016)There is a difference in the learning process with the Jigsaw and STAD methods, namely from the core of the activity, where in jigsaw learning students are divided into jigsaw groups or home groups and then from the home group one of the students is appointed as an expert. Experts from each group discuss to understand the learning material provided, after the experts understand and master the material provided, they then return to the original group. The expert is tasked with explaining to the original group until all group members understand and understand. Meanwhile, in the STAD learning model, the material is given classically, then after the material is given the students are divided into STAD groups to study together and discuss the material that has been given. This is what differentiates between jigsaw and STAD model learning.

CONCLUSIONS AND RECOMMENDATIONS

The female students' ability to practice awareness before being given the jigsaw model of learning was that of the 30 female students who took part in the learning, all fell into the poor criteria (less than 100%). The female students' ability to practice awareness before being given the STAD model of learning was that of the 30 female students who took part in the learning, all fell into the poor criteria (less than 100%). Of the 30 students who took part in the learning, 25 students were in the good criteria (83.3%) and 5 students were in the adequate criteria (16.7%). The female students' ability to practice awareness after being taught the STAD model was that of the 30 female students who took part in the learning, 12 female students were in the good criteria (40%) and 18 female students were in the adequate criteria (60%). Based on the results of the jigsaw pre test, all female students were included in the poor criteria (100%) and the post test learning to realize the Jigsaw model had increased, namely 25 female students were included in the good criteria (83.3%) and 5 female students were included in the sufficient criteria (16.7%) .

Based on the results of the STAD pre-test, all female students were included in the inadequate criteria (100%) and the post-test learning to realize the STAD model had increased, namely 12 female students were included in the good criteria (40%) and 18 female students were included in the sufficient criteria (60%). In the results of the jigsaw learning post test, it was found that 25 female students entered the good criteria (83.3%) and 5 female students entered the adequate criteria (16.7%) while for the STAD model 12 female students entered the good criteria (40%) and 18 female students entered the in sufficient criteria (60%). From ManWhitney's calculations, a significant p value of .000 was obtained. So it can be concluded that jigsaw learning is more effective than the STAD model.

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